

NATIONAL MUSEUM
OF
VICTORIA

MELBOURNE :: AUSTRALIA

MEMOIRS

(World List abbrev. Mem. nat. Mus. Vict.)

No. 22

12th JUNE, 1961

Part 10

ADDITIONS AND CORRECTIONS
TO THE
CHECK LIST OF AUSTRALIAN
ELATERIDAE (Coleoptera)

by

ARTURS NEBOISS

PUBLISHED BY ORDER
OF THE TRUSTEES

TRUSTEES

George Finlay, Esq., O.B.E., L.D.S., B.D.Sc., F.D.S., R.C.S. (Edin.) (Chairman)
Professor E. S. Hills, Ph.D., F.R.S., D.I.C., D.Sc. (Deputy Chairman)
Sir Fred Thorpe, M.C., E.D. (Treasurer)
Henry Gerard Alexander Osborne, Esq., B.Agr.Sc.
Sir Arthur Stephenson, C.M.G., M.C.
Professor S. Sunderland, D.Sc., M.D., B.S., F.R.A.C.S., F.R.A.C.P.
James C. F. Wharton, Esq., B.Sc.

Secretary to the Trustees: W. McCall, E.D.

STAFF

DIRECTOR:

Charles W. Brazenor

ASSISTANT DIRECTOR:

A. N. Burns, M.Sc.

ADMINISTRATION

Secretary to the Director:

M. J. C. Malone

Clerk:

P. J. Reidy

Typistes:

Robin M. E. Walsh
G. Mary Kay
Catherine R. Wardley

SCIENTIFIC STAFF

Geology and Palaeontology:

Curator of Fossils: E. D. Gill, B.A., B.D., F.G.S.
Curator of Minerals: A. W. Beasley, M.S., Ph.D., D.I.C., F.G.S.
Assistants: R. R. Bull, B.Sc.
H. E. Wilkinson

Vertebrate Zoology:

Curator of Mammals: (Vacant)
Curator of Birds: A. R. McEvey, B.A.
Assistant: A. J. Coventry

Invertebrate Zoology:

Curator of Insects: A. N. Burns, M.Sc., F.R.E.S.

Curator of Molluscs: J. Hope Macpherson, M.Sc.

Assistant Curator of Insects: A. Neboiss, M.Sc., F.R.E.S.

Assistants: Patricia M. Hoggart

Elizabeth M. Matheson

Anthropology:

Curator: A. Massola, F.R.S.A.

Library:

Librarian: Joyce M. Shaw, B.A.

P R E P A R A T O R I A L S T A F F**Preparators:**

P. C. R. Boswell

M. G. Traynor

L. J. Chapman

A. Sten

General Assistant: J. Clements

H O N O R A R Y A S S O C I A T E S**Geology and Palaeontology:**

Palaeontology: A. A. Baker, Esq.

A. C. Collins, Esq.

Dr. Isabel C. Cookson

Mrs. E. M. Davies

B. Tindale, Esq.

Mineralogy: Dr. George Baker

S. R. Mitchell, Esq.

Zoology:

Ornithology: C. Austin, Esq.

R. P. Cooper, Esq.

N. J. Favalaro, Esq.

N. F. Learmonth, Esq.

Herpetology: C. Tanner, Esq.

Conchology: J. Crofts, Esq.

C. J. Gabriel, Esq.

Entomology: Dr. P. B. Moore

E. T. Smith, Esq.

Arachnology: L. S. G. Butler, Esq.

R. A. Dunn, Esq.

Anthropology:

Anthropology: H. R. Balfour, Esq.

D. A. Casey, Esq.

S. R. Mitchell, Esq.

Photography:

Photography: Balcombe Quick, Esq., M.D.

Additions and Corrections to the Check List of Australian Elateridae (Coleoptera)

*By Arturs Neboiss, M.Sc., F.R.E.S., Assistant Curator of Insects,
National Museum of Victoria.*

INTRODUCTION.

Since the publication of "A check list of Australian Elateridae" Neboiss (1956) additional information has been accumulated and includes verifications and additions to the locations of type specimens, systematic changes made in recent publications, and corrections.

This list follows the style of 1956 list, and should be used in conjunction with it. Page references to the latter are given on the left side of page, but full reference to 1956 check list is made only to species where taxonomic changes had taken place. Discrepancies in location of type specimens, particularly those of Blackburn's, occurred mostly where the lists of type specimens, received from various museums, was not quite complete or accurate at that time. Dr. Van Zwaluwenburg's survey in European museums had clarified many of these points (1959), but there is still a small number of species where location of type specimens is unknown or otherwise uncertain.

Institutions and private collections holding type or paratype specimens are listed under following abbreviations:

AM—Australian Museum, Sydney.

BM—British Museum (Natural History), London.

CD—Private collection of Mr. C. Deane, Montville, Qld.

CSIRO — Division of Entomology Museum, C.S.I.R.O.,
Canberra.

DANSW—Department of Agriculture, New South Wales.

DEI—Deutsches Entomologisches Institut, Berlin.

ETS—Private collection of Mr. E. T. Smith, Melbourne.

FEW—Private collection of Mr. F. E. Wilson, Melbourne.

FTF—Private collection of Mr. F. T. Fricke, Sydney.

Genoa—Museo Civico di Storia Naturale, Genoa.

- HSPA—Hawaiian Sugar Planters Association, Honolulu.
IRSNB—Institut Royal des Sciences Naturelles de Belgique, Brussels.
JA—Private collection of Mr. J. Armstrong, Nyngan, N.S.W.
JS—Private collection of Mr. J. Sedlacek, San Francisco.
MACL—Macleay Museum, University of Sydney.
MDN—Museum d'Histoire Naturelle, Paris.
NM—National Museum of Victoria, Melbourne.
NRS—Naturhistoriska Riksmuseet, Stockholm.
Oxford—Hope Department, University Museum, Oxford.
QM—Queensland Museum, Brisbane.
QU—Queensland University, Brisbane.
SAM—South Australian Museum, Adelaide.
TDA—Tasmanian Department of Agriculture, Hobart.
ZM—Zoologisches Museum, Humboldt University, Berlin.

Following the death of Mr. F. E. Wilson, his collection of Australian insects was presented to the National Museum of Victoria, and thus all types referred to in this list as being in that collection are now located in the above institution.

ACKNOWLEDGMENTS.

The author is greatly indebted to the Institutions and private collectors shown above for their co-operation. The most sincere thanks are due to Miss Christine von Hayek, London; Dr. R. H. Van Zwaluwenburg, Santa Rosa; Dr. A. Villiers, Paris, and Dr. K. Delkeskamp, Berlin, for their valuable information and criticism.

p. 3.

Subfamily *ADELOCERINAE*(this name replaces subfamily *AGRYPNINAE*)Genus *Lanelater* Arnett*Agrypnus* Eschscholtz, 1829, in Thon. Ent. Arch. **2**(1): 32.*Lanelater* Arnett, 1952, Wasmann Journ. Biol. **10**: 105.TYPE species: *Agrypnus schotti* LeConte, 1853, Trans. Amer. Phil. Soc. **10**: 492.

The reason for change of generic name from *Agrypnus* to *Lanelater* is given by Arnett (1952) as follows: "This new generic name applies to those species which were formerly placed in the genus *Agrypnus* Eschscholtz (1829, page 32). Mr. M. C. Lane kindly pointed out to me that Westwood (1838, Introduction to the modern classification of insects, vol. 2, appendix page 26) designated *Elater murinus* Linnaeus the type of *Agrypnus*. This means that Hyslop's (1921) designation of *Elater tomentosus* Fabricius as the type of *Agrypnus* is not acceptable, and makes this generic name isogenotypic with *Lacon*, which is not North American. I therefore propose the new generic name, . . ."

According to Arnett it includes 80 species, 7 of which are recorded to be Australian and Oceanic in distribution. How far this change will effect the taxonomy of Australian species has to be seen from a complete revision of the *Agrypnus*, *Adelocera*, *Lacon* complex.

ereptus (Fleutiaux)*Agrypnus ereptus*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 3.*Lanelater ereptus* (Cand.) Zwaluwenburg, 1959, Pac. Ins. **1**: 349.

TYPE: BM.

grandis (Hope)*Agrypnus grandis*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 3.*Lanelater grandis*, Zwaluwenburg, 1959, Pac. Ins. **1**: 350.

TYPE: Oxford. (Lectotype ♀ selected by Zwaluwenburg).

p. 4. *resectus* (Candeze)*Agrypnus resectus*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 4.

TYPE: IRSNB.

Genus *Adelocera* Latreille*lindensis* (Blackburn)*Lacon lindensis*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 9.*Adelocera lindensis*, Zwaluwenburg, 1959, Pac. Ins. **1**: 352.

TYPE: BM. PARATYPE: (cotype) — SAM.

modesta (Boisduval) --- see *Lacon modestus* (Boisduval).*socia* (Candeze)

TYPE: BM.

Genus *Adelocera* subgenus *Compsolacon* Reitter

Compsolacon, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 14.

Adelocera subg. *Compsolacon*, Zwaluwenburg, 1959, Pac. Ins. **1**: 352.

crassa (Candeze)

Lacon crassus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 7.

Adelocera (*Compsolacon*) *crassa*, Zwaluwenburg, 1959, Pac. Ins. **1**: 353.

TYPE: Bonn Museum (Bruck Coll.) ; lost in 1939-45 war.

duplex (Blackburn)

Lacon duplex, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 7.

Adelocera (*Compsolacon*) *duplex*, Zwaluwenburg, 1959, Pac. Ins. **1**: 353.

TYPE: BM. PARATYPES: (cotypes) — AM ; SAM.

farinensis (Blackburn)

Lacon farinensis, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 7.

Adelocera (*Compsolacon*) *farinensis*, Zwaluwenburg, 1959, Pac. Ins. **1**: 353.

TYPE: BM. PARATYPES: (cotypes) — SAM.

labiosa (Candeze)

Lacon labiosus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 9.

Adelocera (*Compsolacon*) *labiosa*, Zwaluwenburg, 1959, Pac. Ins. **1**: 353.

TYPE: BM.

lateralis (Schwarz) (as before)*mansueta* (Blackburn)

Lacon mansuetus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 10.

Adelocera (*Compsolacon*) *mansueta*, Zwaluwenburg, 1959, Pac. Ins. **1**: 353.

TYPE: BM. PARATYPES: (cotypes) — SAM.

marmorata (Candeze)

Lacon marmoratus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 10.

Adelocera (*Compsolacon*) *marmorata*, Zwaluwenburg, 1959, Pac. Ins. **1**: 354.

TYPE: BM. PARATYPES: (cotypes) — SAM.

TYPE of *L. squalescens* Blkb.: BM. PARATYPES: (cotypes) — SAM.

(*Squalescens* Blkb. probably is not synonymous with *marmorata* Cand. — Hayek in litt. April, 1960.)

octava (Candeze)

Lacon octavus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 11.

Adelocera (*Compsolacon*) *octava*, Zwaluwenburg, 1959, Pac. Ins. **1**: 354.

TYPE: BM.

palpalis (Candeze)

Lacon palpalis, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 11.

Adelocera (*Compsolacon*) *palpalis*, Zwaluwenburg, 1959, Pac. Ins. **1**: 354.

TYPE: IRSNB.

princeps (Candeze)

Lacon princeps, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 12.

Adelocera (Compsolacon) princeps, Zwaluwenburg, 1959, Pac. Ins. **1**: 354.

TYPE: BM.

semivestitus (Elston)

TYPE: AM. PARATYPES: (cotypes) — SAM.

Genus *Lacon* Castelnau

adustus Elston

Two of the paratypes in AM are marked "var.".

alboguttatus Macleay

TYPE: MACL.

andersoni Blackburn

TYPE: BM.

p. 5. *atricolor* Macleay

TYPE: MACL.

badius Elston

PARATYPES: also NM.

bigener Elston

PARATYPES: also NM.

brightensis Blackburn

TYPE: BM. PARATYPES: (cotypes) — AM ; SAM.

p. 6. *carinulatus* Candeze

TYPE: BM.

TYPE of *adelaidae* Blkb.: BM.

communis Macleay.

TYPE: MACL.

cordipennis Candeze

TYPE: BM.

p. 7. *crassus* Candeze — see *Adelocera (Compsolacon) crassa* (Candeze).

duboulayi Candeze

TYPE: BM.

duplex Blackburn — see *Adelocera (Compsolacon) duplex* (Blkb.).

elstoni Neboiss

PARATYPE: AM.

farinensis Blackburn — see *Adelocera (Compsolacon) farinensis* (Blkb.).

p. 8. *fasciolatus* Macleay

TYPE: MACL.

fatuus Candeze

TYPE: BM.

ferrugineus Candeze

TYPE: BM.

foveicollis Macleay

TYPE: MACL.

froggatti Macleay

TYPE: MACL.

p. 9. *incultus* Macleay

TYPE: MACL.

labiosus Candeze — see *Adelocera* (*Compsolacon*) *labiosus* (Cand.).*laticollis* Candeze

TYPE: BM.

lindensis Blackburn — see *Adelocera lindensis* (Blkb.).*lineatellus* Macleay

TYPE: MACL.

p. 10. *mansuetus* Blackburn — see *Adelocera* (*Compsolacon*) *mansueta* (Blkb.).*marginatus* Candeze

TYPE: BM.

marmoratus Candeze — see *Adelocera* (*Compsolacon*) *marmorata* (Cand.).*modestus* (Boisduval)

Cosmopolitan

Lacon modestus, Zwaluwenburg, 1942, Bishop Mus. Bull. **172**: 53.*Lepidotus modesta*, Arnett, 1952, Wasman Journ. Biol. **10**: 107.*Lacon modestus*, Zwaluwenburg, 1957, Ins. Micron. **16**(1): 7.*Lacon modestus*, Zwaluwenburg, 1959, Pac. Ins. **1**: 355.

TYPE: BM.

multipunctatus Elston

PARATYPE: AM.

nigrescens Macleay

TYPE: MACL.

- p. 11. *octavus* Candeze — see *Adelocera* (*Compsolacon*) *octava* (Cand.).
palpalis Candeze — see *Adelocera* (*Compsolacon*) *palpalis* (Cand.).
parvulus Macleay
 TYPE: MACL.
- pictipennis* Candeze
 TYPE: BM.
- porriginosus* Candeze
 TYPE: BM.
- p. 12. *princeps* Candeze — see *Adelocera* (*Compsolacon*) *princeps* (Cand.).
punctipennis Candeze
 TYPE: BM.
- rubescens* Macleay
 TYPE: MACL.
- rubicundulus* Macleay
 TYPE: MACL.
- rufopiceus* Macleay
 TYPE: MACL.
- scaber* Candeze N.S.W.
Lacon scaber, Candeze, 1857, Mem. Soc. Sci. Liege **12**: 153.
Lacon scaber, Redtenbacher, 1868, Reise Novara. . . . Zool. **2**: 93.
 TYPE: ?.
- p. 13. *subtilis* Macleay
 TYPE: MACL.
- ursulus* Candeze
 TYPE: BM.
- variabilis* Candeze
 TYPE of *L. maculosus* MacL.: MACL.
- p. 14. *variolus* Candeze
 TYPE: BM.

Genus *Compsolacon* Reitter

see genus *Adelocera* subgenus *Compsolacon* Reitter.

p. 15.

Genus *Homoeolacon* Blackburn*gracilis* Blackburn

TYPE: BM. PARATYPES: (cotypes) — IRSNB; SAM.

Genus *Myrmodes* Candeze*akidiformis* Candeze*Myrmodes akidiformis*, Zwaluwenburg, 1959, Pac. Ins. **1**: 355.

TYPE: BM.

Subfamily *HEMIRRHIPINAE*Genus *Alaus* Eschscholtz*albatrus* Candeze*Alaus albatrus*, Zwaluwenburg, 1959, Pac. Ins. **1**: 355.

TYPE: MDN (designated by Fleutiaux).

p 16. *funnebris* Candeze*Alaus funnebris*, Heller, 1900, Denkschr. Med.-Naturw. Ges. Jena **8**(17): 620.*gibboni* Newman*Alaus gibboni*, Zwaluwenburg, 1959, Pac. Ins. **1**: 359.

TYPE: BM (?).

prosectus Candeze*Alaus prosectus*, Zwaluwenburg, 1959, Pac. Ins. **1**: 362.*sericeus* Candeze*Alaus sericeus*, Zwaluwenburg, 1959, Pac. Ins. **1**: 362.

p. 17.

Genus *Tetrigus* Candeze*australicus* Blackburn*Tetrigus australicus*, Zwaluwenburg, 1959, Pac. Ins. **1**: 363.

TYPE: BM. (specimen in NM probably cotype).

Subfamily *TETRALOBINAE*Genus *Pseudotetralobus* Schwarz*albertisi* (Candeze)*Pseudotetralobus albertisi*, Zwaluwenburg, 1959, Pac. Ins. **1**: 365.

TYPE: Genoa.

australasiae (Gory)*Pseudotetralobus australasiae*, Zwaluwenburg, 1959, Pac. Ins. **1**: 365.

TYPE: BM.

TYPE of *P. manglesi* (Hope): Oxford.

p. 18. *capucinus* (Candeze)*Pseudotetralobus capucinus*, Zwaluwenburg, 1959, Pac. Ins. 1: 365.

TYPE: IRSNB.

fortnumi (Hope)*Pseudotetralobus fortnumi*, Zwaluwenburg, 1959, Pac. Ins. 1: 365.

TYPE: Oxford.

murrayi (Candeze)*Pseudotetralobus murrayi*, Zwaluwenburg, 1959, Pac. Ins. 1: 365.

TYPE: BM.

punctipennis Elston

PARATYPE: AM.

p. 19. *quadrifoveatus* (Macleay)

TYPE: MACL.

Subfamily *PACHYDERINAE*Genus *Glypheus* Candeze*alpinus* Blackburn

TYPE: BM. PARATYPES: (cotypes) — SAM.

decoratus Candeze

TYPE: MDN (designated by Fleutiaux).

p. 20. *militaris* Carter

PARATYPE: SAM.

nigrinus Carter

TYPE: AM.

sanguineus Elston

PARATYPE: AM.

subfasciatus Carter

TYPE: AM.

villosulus Candeze

TYPE: BM.

Genus *Simodactylus* Candeze*cinnamomeus* (Boisduval)*Simodactylus cinnamomeus*, Zwaluwenburg, 1959, Pac. Ins. 1: 368.

(doubtful whether Australian species)

TYPE: BM.

Subfamily *CONODERINAE*p. 21. Genus *Glyphochilus* Candeze*bicolor* Candeze
TYPE: IRSNB.*championi* Candeze
TYPE: IRSNB.*fervus* (Erichson)
TYPE: ZM.*leptus* Candeze
TYPE: BM.*lucidus* (Erichson)
TYPE: ZM.*montanus* Blackburn
TYPE: BM. PARATYPES: (cotypes) -- SAM.*occidentalis* Candeze
TYPE: IRSNB.Genus *Conoderus* Eschscholtzp. 23. after *aurulentus* enter:
australasiae Boisduval -- see *Conoderus basalis* (Gyllenhal).*basalis* (Gyllenhal)
Monocrepidius australasiae, Redtenbacher, 1868, Reise der . . . Novara.
Zool. **2**: 93.*basilaris* (Candeze)
Conoderus basilaris, Zwaluwenburg, 1959, Pac. Ins. **1**: 370.
TYPE: Genoa.p. 24. *cerdo* (Erichson)
TYPE: ZM.*compactus* (Candeze)
Conoderus compactus, Zwaluwenburg, 1959, Pac. Ins. **1**: 370; fig. 5.*coxalis* (Candeze)
TYPE: BM.p. 25. *eveillardi* (LeGuillou)
Conoderus eveillardii, Zwaluwenburg, 1959, Pac. Ins. **1**: 371.
TYPE: MDN (designated by Fleutiaux).
TYPE of *M. rubicundus* MacL.: MACL.*fabrilis* (Erichson)
Monocrepidius fabrilis, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.). **20**: 156.
TYPE: ZM.
flavicans (Candeze) — see *Conoderus (Heteroderes) flavicans* (Cand.).

p. 26. *fortis* (Blackburn)

TYPE: BM. PARATYPES: (cotypes) — SAM.

fuscicornis (Erichson)

TYPE: ZM.

ingens (Blackburn)

TYPE: BM. PARATYPES: (cotypes) — SAM.

jekeli (Candeze)*Conoderus jekeli*, Zwaluwenburg, 1959, Pac. Ins. 1: 371.

TYPE: BM.

juvenis (Blackburn)*Conoderus juvenis*, Zwaluwenburg, 1959, Pac. Ins. 1: 371 ; fig. 6.p. 27. *macleayanus* Schenkling

TYPE: MACL.

menevillei (Candeze)*Monocrepidius menevillei*, Redtenbacher, 1868, Reise der . . . Novara. Zool.
2: 93.p. 28. *nonus* (Macleay)

TYPE: MACL.

octavus (Macleay)

TYPE: MACL.

p. 29. *planiusculus* (Candeze)*Conoderus planiusculus*, Zwaluwenburg, 1959, Pac. Ins. 1: 372.*planus* (Candeze)*Conoderus planus*, Zwaluwenburg, 1959, Pac. Ins. 1: 372.*primus* (Macleay)

TYPE: MACL.

quartus (Macleay)

TYPE: MACL.

p. 30. *quintus* (Macleay)

TYPE: MACL.

regularis (Candeze)*Conoderus regularis*, Zwaluwenburg, 1959, Pac. Ins. 1: 371 ; 372.

TYPE: Genoa.

rufifrons (Candeze)*Conoderus rufifrons*, Zwaluwenburg, 1959, Pac. Ins. 1: 372 ; fig. 7.

rutilicornis (Erichson)

TYPE: ZM.

secundus (Macleay)

TYPE: MACL.

p. 31. *seniculus* (Candeze)

Conoderus seniculus, Zwaluwenburg, 1959, Pac. Ins. **1**: 372.

septimus (Macleay)

TYPE: MACL.

sextus (Macleay)

TYPE: MACL.

simulans (Candeze)

Conoderus simulans, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

TYPE: Genoa.

socius (Candeze)

Conoderus socius, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

TYPE: IRSNB.

squalescens (Candeze)

Conoderus squalescens, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

TYPE: IRSNB.

squalidus (Candeze)

Conoderus squalidus, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

(generic position doubtful)

strigatus (Candeze)

Conoderus strigatus, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

TYPE: IRSNB.

p. 32. *tabidus* (Erichson)

TYPE: ZM.

TYPE of *Ludius crocopus* Hope: ?.

tertius (Macleay)

TYPE: MACL.

torresi (Candeze)

Conoderus torresi, Zwaluwenburg, 1959, Pac. Ins. **1**: 373 ; fig. 8.

TYPE: Genoa.

tumidus (Candeze)

Conoderus tumidus, Zwaluwenburg, 1959, Pac. Ins. **1**: 373.

TYPE: IRSNB.

p. 33. *variegatus* (Blackburn)

TYPE: BM. PARATYPES: (cotypes) — SAM; AM.

ventralis (Candeze)

Conoderus ventralis, Zwaluwenburg, 1959, Pac. Ins. **1**: 371; 374.

TYPE: IRSNB.

Genus *Conoderus* subgenus *Heteroderes* Latreille

Heteroderes, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 34.

Conoderus subgen. *Heteroderes*, Zwaluwenburg, 1959, Pac. Ins. **1**: 375.

albidus (Macleay) (as before)

blackburni Zwaluwenburg

Heteroderes carinatus Blackburn, 1889, Proc. Linn. Soc. N.S.W. (2) **3**: 1423.
(not *C. carinatus* Cand. 1859).

Heteroderes carinatus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 34.

Conoderus (Heteroderes) blackburni, Zwaluwenburg, 1959, Pac. ins. **1**: 375.

TYPE: BM. PARATYPES: (cotypes) — SAM.

cairnensis Blackburn — see *Conoderus (Heteroderes) flavicans* (Cand.).

carinatus Blackburn — see *Conoderus (Heteroderes) blackburni* Zwal.

flavicans (Candeze)

Qld.

Monocrepidius flavicans, Candeze, 1878, Ann Mus. Stor. nat. Genova, **12**: 116.

Heteroderes cairnensis, Blackburn, 1893, Trans. Roy Soc. S. Austr. **17**: 296.

Conoderus flavicans, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 25.

Heteroderes cairnensis, Neboiss, ibid, p. 34.

Conoderus (Heteroderes) flavicans, Zwaluwenburg, 1959, Pac. Ins. **1**: 375.

TYPE: Genoa.

TYPE of *H. cairnensis* Blkb.: BM. PARATYPES: (cotypes) — AM; SAM.

Genus *Aeolus* Eschscholtz

australis Candeze

Aeolus australis, Zwaluwenburg, 1959, Pac. Ins. **1**: 376.

TYPE: NRS.

queenslandicus Blackburn — see *Aeoloderma queenslandica* (Blkb.)

Genus *Aeoloderma* Fleutiaux

Aeoloderma Fleutiaux, 1928, Encyc. Ent. Paris B.I. Coll. **3**: 135.

TYPE species: *Elater crucifer* Rossi, 1790, Faune Etr. **1**: 183.

queenslandica (Blackburn)

N-th Qld.

Aeolus queenslandicus, Blackburn, 1892, Proc. Linn. Soc. N.S.W. (2) **7**: 295.

Aeolus queenslandicus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 33.

Aeoloderma queenslandica, Zwaluwenburg, 1959, Pac. Ins. **1**: 376.

TYPE: BM.

p. 34.

Genus *Heteroderes* Latreillesee genus *Conoderus* subgenus *Heteroderes* Latreille.Subfamily *ELATERINAE* becomes *AMPEDINAE*

p. 35.

Genus *Ampedus* Megerle*Ampedus*, Megerle, 1833, in Dejean ; replaces *Elater*.TYPE species: *Elater sanguineus* Linn, 1758, Syst. Nat. ed. 10: 405.*cinnamomeus* (Macleay)

TYPE: MACL.

granulatipennis (Lea)

PARATYPES: TDA ; NM ; SAM.

inconspicuus (Macleay)

TYPE: MACL.

longiusculus (Macleay)

TYPE: MACL.

p. 36. *perplexus* (Candeze)

TYPE: BM.

wentworthensis (Blackburn)*Elater wentworthensis*, Blackburn, 1897, Trans. Roy. Soc. S. Austr. 21: 32.

PARATYPES: (cotypes) — SAM.

xanthomus, Macleay, W. S. — see *Anilicus xanthomus* (Macleay).Genus *Megapenthes* Kiesenwetter*automolus* Candeze*Neotrichophorus automolus*, Neboiss, 1956, Mem. Nat. Mus. Vict. 22(2): 57.*Megapenthes automolus*, Zwaluwenburg, 1959, Pac. Ins. 1: 379.

TYPE: BM.

dolens Candeze*Neotrichophorus dolens*, Neboiss, 1956, Mem. Nat. Mus. Vict. 22(2): 57.*Megapenthes dolens*, Zwaluwenburg, 1959, Pac. Ins. 1: 380.

TYPE: BM.

futilis Candeze*Megapenthes futilis*, Blackburn, 1897, Trans. Roy. Soc. S. Austr. 21: 32.*lituratus* Candeze*Megapenthes lituratus*, Zwaluwenburg, 1959, Pac. Ins. 1: 381.

TYPE: MDN.

p. 37.

Genus *Melanoxanthus* Eschscholtz

angularis Candeze

Melanoxanthus angularis, Zwaluwenburg, 1959, Pac. Ins. **1**: 385.

TYPE: Genoa. (Terra typica — New Guinea).

australis Candeze

Melanoxanthus australis, Zwaluwenburg, 1959, Pac. Ins. **1**: 385.

TYPE: MDN (designation by Fleutiaux).

biarctus Carter

TYPE: MACL. PARATYPES: NM; SAM.

p. 38. *fasciolatus* (Macleay)

TYPE: MACL.

froggatti (Macleay)

TYPE: MACL.

jucundus Carter

PARATYPES: MACL.

lativittis Carter

PARATYPES: AM.

melanocephalus (Fabricius) N.S.W.

Elater melanocephalus, Fabricius, 1781, Spec. Ins. **1**: 272.

Melanoxanthus melanocephalus, Redtenbacher, 1868, Reise der . . . Novara.

Zool. **2**: 95 (from Sydney).

Melanoxanthus melanocephalus, Zwaluwenburg, 1942, Bishop Mus. Bull.

172: 53.

Melanoxanthus melanocephalus, Zwaluwenburg, 1959, Pac. Ins. **1**: 387.

TYPE: BM.

ruficollis Candeze

TYPE: Genoa.

p. 39. Subfamily *PSYSORRHININAE* should be placed before subfamily
AMPEDINAE.

Subfamily *HYPOLITHINAE*

Genus *Hypholithus* Eschscholtz
to replace genus *Hypnoidus* Dill.

Hypolithus, Eschscholtz, 1829, in Thon, "Entomol. Arch." 2(1): 34.

Hypolithus, Lane, 1948, Proc. Ent. Soc. Wash. **50**: 223.

TYPE species: *Hypolithus littoralis* Eschscholtz *ibid*.

dimidiatus (Macleay)

TYPE: MACL.

TYPE of *C. semifasciatus* MacL.: MACL.

Subfamily *CARDIOPHORINAE*p. 41. Genus *Paracardiophorus* Schwarz.*amabilis* Carter

PARATYPES: SAM.

p. 42. *dulcis* Carter

PARATYPES: MACL.

p. 43. *eucalypti* (Blackburn)

TYPE: BM.

humilis (Candeze)*Paracardiophorus humilis*, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.) **20**: 157.*litoralis* Carter

PARATYPES: AM.

p. 44. *macleayi* (Schwarz)

TYPE: MACL.

nigrosuffusus Carter

PARATYPES: MACL.

p. 45. *varians* Carter

PARATYPES: AM ; DANSW ; MACL.

p. 46. *victoriensis* (Blackburn)

TYPE: BM.

Subfamily *ATHOINAE*p. 47. Genus *Limonius* EschscholtzTYPE species: *Elater aeoniger* DeGeer (syn. *Elater bructeri* Fab.)*angulatus* Carter

PARATYPES: MACL ; DANSW.

pubescens Carter

PARATYPES: MACL ; SAM.

Subfamily *CTENICERINAE**Ctenicerinae* Fleutiaux, 1936, Ann. Soc. Ent. Fr. **105**: 279-300.
not nom. nov. Neboiss, 1956.Genus *Ctenicera* Latreille*ambigua* (Candeze)*Ludius ambiguus*, Schwarz, 1907, Gen. Ins. **46**: 228.*australica* (Candeze)*Ludius australicus*, Schwarz, 1907, Gen. Ins. **46**: 228.*compsorhabda* (Candeze)*Ludius compsorhabdus*, Schwarz, 1907, Gen. Ins. **46**: 228.*Ctenicera compsorhabda*, Zwaluwenburg, 1959, Pac. Ins. **1**: 401.

TYPE: BM.

p. 48. *litura* (Candeze)

Ludius liturus, Schwarz, 1907, Gen. Ins. **46**: 228.

nigrina (Macleay)

Ludius nigrinus, Schwarz, 1907, Gen. Ins. **46**: 228.

rufipennis (Macleay)

Ludius rufipennis, Schwarz, 1907, Gen. Ins. **46**: 228.

suavis (Candeze)

Corymbites suavis, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.) **20**: 157.

TYPE: IRSNB.

subpectinata (Schwarz)

Ludius subpectinatus, Schwarz, 1907, Gen. Ins. **46**: 228.

tasmanica (Candeze)

TYPE: BM.

victoriae (Schwarz)

Ludius victoriae, Schwarz, 1907, Gen. Ins. **46**: 228.

xanthoptera (Candeze)

Ludius xanthopterus, Schwarz, 1907, Gen. Ins. **46**: 228.

Ctenicera xanthoptera, Zwaluwenburg, 1959, Pac. Ins. **1**: 401.

TYPE: BM.

Genus *Pristilophus* Latreille

impurus Germar

TYPE: ZM.

(generic position doubtful)

p. 49.

Genus *Elatichrosis* Hyslop

Chrosis, Candeze, 1863, Mem. Soc. Sci. Liege. **17**: 186 (Not Guenee 1845)

Elatichrosis, Hyslop, 1921, Proc. U.S. Nat. Mus. **58**: 644.

Elatichrosis, Neboiss, 1960, Austr. J. Zool. **8**: 293-305; figs.

TYPE species: *Chrosis exarata* Candeze, 1863, Mem. Soc. Sci. Liege, **17**: 186.

adusta Neboiss

Australia

Elatichrosis adusta, Neboiss, 1960, Austr. J. Zool. **8**: 298; figs.

TYPE: BM.

angusticollis (Blackburn)

Vic.

Chrosis angusticollis, Blackburn, 1900, Trans. Roy. Soc. S. Austr. **24**: 114.

Elatichrosis trisulcata, Carter, 1939, Proc. Linn. Soc. N.S.W. **64**: 305.

Elatichrosis trisulcata, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.

Elatichrosis angusticollis, Neboiss, 1960, Austr. J. Zool. **8**: 298; figs.

TYPE: BM.

barbata (Candeze) — New Zealand species, to be omitted from Australian list.

bullarta Neboiss

Vic.

Elatichrosis bullarta, Neboiss, 1960, Austr. J. Zool. **8**: 303; figs.

TYPES: NM. PARATYPE: QM.

clivalis Neboiss

N.S.W.

Elatichrosis clivalis, Neboiss, 1960, Austr. J. Zool. **8**: 303; figs.

TYPES: NM. PARATYPES: BM; JA; AM; NM; FTF; MACL; SAM.

dirana Neboiss

N.S.W.

Elatichrosis dirana, Neboiss, 1960, Austr. J. Zool. **8**: 302; figs.

TYPE: NM. PARATYPES: AM; JA; MACL; NM.

exarata (Candeze)

Tas.

Chrosis exarata, Candeze, 1863, Mem. Soc. Sci. Liege. **17**: 186.*Elatichrosis exarata*, Hyslop, 1921, Proc. U.S. Nat. Mus. **58**: 644.*Elatichrosis exarata*, Senenkling, 1927, Col. Cat. **11**(88): 406.*Elatichrosis exarata*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.*Elatichrosis exarata*, Neboiss, 1960, Austr. J. Zool. **8**: 301; figs.

TYPES: BM.

gananga Neboiss

N-th Qld.

Elatichrosis gananga, Neboiss, 1960, Austr. J. Zool. **8**: 296; figs.

TYPES: Holotype ♀ NM; Allotype ♂ SAM. PARATYPES: AM; SAM.

illita (Candeze) — see *Lingana illita* (Cand.).**kituga** Neboiss

Vic.

Elatichrosis kituga, Neboiss, 1960, Austr. J. Zool. **8**: 304; figs.

TYPES: NM. PARATYPES: AM; BM; ETS; FEW; JA; QM.

lansbergei (Candeze)

S-th Qld., N-th N.S.W.

Chrosis lansbergei, Candeze, 1882, Mem. Soc. Sci. Liege (2)**9**: 97.*Elatichrosis lansbergei*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.*Elatichrosis lansbergei*, Neboiss, 1960, Austr. J. Zool. **8**: 295; figs.

TYPE: MDN.

sequestris Neboiss

S-th Qld.

Elatichrosis sequestris, Neboiss, 1960, Austr. J. Zool. **8**: 297; figs.

TYPES: QM.

trisulcata (Erichson)

Vic., Tas.

Pristilophus trisulcatus, Erichson, 1842, Arch. Naturgesch. **8**(1): 139.*Pristilophus trisulcatus*, Germar, 1842, Zeitschr. Ent. **4**: 92.*Chrosis trisulcata*, Candeze, 1863, Mem. Soc. Sci. Liege **17**: 186; pl. 2, fig. 10.*Elatichrosis trisulcata*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.*Elatichrosis trisulcata*, Neboiss, 1960, Austr. J. Zool. **8**: 300; figs.

TYPE: ZM.

vrydaghi Neboiss

S-th Qld., N-th N.S.W.

Elatichrosis vrydaghi, Neboiss, 1960, Austr. J. Zool. **8**: 299; figs.

TYPE: SAM. PARATYPES: AM; NM.

wilsoni Neboiss

S-th N.S.W., Vic.

Elatichrosis wilsoni, Neboiss, 1960, Austr. J. Zool. **8**: 304; figs.

TYPES: FEW. PARATYPES: NM; SAM.

Genus *Lingana* Neboiss*Lingana*, Neboiss, 1960, Austr. J. Zool. **8**: 290; figs.TYPE species: *Chrosis illita*, Candeze, 1863, Mem. Soc. Sci. Liege **17**: 187.**dombarta** Neboiss

S.W.A.

Lingana dombarta, Neboiss, 1960, Austr. J. Zool. **8**: 292; figs.

TYPE: SAM.

illita (Candeze)

S-th Qld., N.S.W., Vic.

Chrosis illita, Candeze, 1863, Mem. Soc. Sci. Liege **17**: 187; pl. 2, fig. 7.*Metablax Plasoni*, Schwarz, 1903, Dtsch. Ent. Z. **1903**: 393.*Chrosis illita*, Schwarz, 1906, Dtsch. Ent. Z. **1906**: 368.*Elatichrosis illita*, Schenkling, 1927, Col. Cat. **11**(88): 406.*Elatichrosis illita*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.*Lingana illita*, Neboiss, 1960, Austr. J. Zool. **8**: 291; figs.

TYPE: BM. PARATYPE: BM.

TYPE of *M. plasoni* Schw.: ?.Genus *Aphileus* Candeze*Aphileus*, Candeze, 1857, Mem. Soc. Sci. Liege **12**: 184.*Aphileus*, Neboiss, 1959, Austr. J. Zool. **7**: 137.TYPE species: *Aphileus lucanoides* Candeze, *ibid.**depressus* Candeze — see *Aphileus lucanoides* Cand.**distinctus** Neboiss

N-th Qld., N.W.A.

Aphileus distinctus, Neboiss, 1959, Austr. J. Zool. **7**: 138; figs. 2-4; pl. 1, fig. 1.

TYPES: Holotype ♂ NM; Allotype ♀ FEW. PARATYPES: NM; SAM.

ferox Blackburn

N-th Qld.

Aphileus ferox, Blackburn, 1895, Trans. Roy. Soc. S. Austr. **19**: 50.*Aphileus ferox*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.*Aphileus ferox*, Neboiss, 1959, Austr. J. Zool. **7**: 143; figs. 18-21; pl. 1, fig. 4.*Aphileus ferox*, Zwaluwenburg, 1959, Pac. Ins. **1**: 402.

TYPE: BM.

goombarus Neboiss

S.W.A.

Aphileus goombarus, Neboiss, 1959, Austr. J. Zool. **7**: 144; figs. 22, 23; pl. 1, fig. 5.

TYPE: NM.

lucanoides Candeze

Qld., N.S.W., W.A.

Aphileus lucanoides, Candeze, 1857, Mem. Soc. Sci. Liege **12**: 184; pl. 3, fig. 5.

Aphileus depressus, Candeze, *ibid.* : 185.

Dorcastoma (Elater) Jansoni, Newman, 1857, Trans. Ent. Soc. Lond. (N.S.) **4**: 52.

Aphileus lucanoides, Gemminger & Harold, 1869, Cat. Col. **5**: 1496.

Aphileus lucanoides, Schwarz, 1907, Gen. Ins. **46**: 231.

Aphileus lucanoides, Schenkling, 1927, Col. Cat. **11**(88): 406.

Aphileus lucanoides var. *depressus*, Elston, 1930, Ark. Zool. **22**: 18.

Aphileus depressus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 49.

Aphileus lucanoides, Neboiss, *ibid.*

Aphileus lucanoides, Neboiss, 1959, Austr. J. Zool. **7**: 139; figs. 5-14; pl. 1, fig. 2.

Aphileus lucanoides, Zwaluwenburg, 1959, Pac. Ins. **1**: 402.

TYPE: BM.

TYPE of *A. depressus* Cand.: BM.

TYPE of *D. jansoni* Newm.: ?.

mulkanus Neboiss

Qld.

Aphileus mulkanus, Neboiss, 1959, Austr. J. Zool. **7**: 141; figs. 15-17; pl. 1, fig. 3.

TYPE: QM. PARATYPES: AM; NM; SAM; QU.

p. 50.

Genus *Chrostus* Candeze.*quadrifoveolatus* Candeze

Chrostus quadrifoveolatus (?), Blackburn, 1896, Rep. Horn Exped. 2. Zool. (Col.) : 272.

Chrostus quadrifoveolatus, Zwaluwenburg, 1959, Pac. Ins. **1**: 402.

TYPE: IRSNB.

Genus *Hapatesus* Candeze

Hapatesus, Candeze, 1863, Mem. Soc. Sci. Liege **17**: 188.

Genus *Hapatesus* subgenus *Hapatesus* Candeze

Hapatesus s.s., Neboiss, 1957, Austr. J. Zool. **5**: 499.

TYPE species: *Hapatesus hirtus*, Candeze, ibid.

argentatus Neboiss

Qld., N-th N.S.W.

Hapatesus pretiosus, Elston non Candeze, 1930, Ark. Zool. **22**: 18.

Hapatesus (*Hapatesus*) *argentatus*, Neboiss, 1957, Austr. J. Zool. **5**: 500 ;
figs. 10, 11.

TYPES: AM. PARATYPES: AM ; JS ; MACL ; NM ; NRS ; SAM.

dubius, Schwarz — see *Toorongus jugulatus* (Cand.).

electus Neboiss

S-th Qld., N.S.W.

Hapatesus (*Hapatesus*) *electus*, Neboiss, ibid. : 508 ; figs. 23, 24.

TYPE: AM. PARATYPES: AM ; BM ; FEW ; JA ; MACL ; NM ; SAM ;
TDA.

globosus Neboiss.

N-th Qld.

Hapatesus (*Hapatesus*) *globosus*, Neboiss, ibid.: 505 ; fig. 18.

TYPE: NM.

hirtus Candeze

S-th Qld., N.S.W., Vic., S.A.

Hapatesus hirtus, Candeze, 1863, Mem. Soc. Sci. Liege **17**: 188 ; pl. 2, fig. 8.

Hapatesus hirtus, Froggatt, 1923, Forest Ins. Austr.: 35.

Hapatesus (*Hapatesus*) *hirtus*, Neboiss, 1957, Austr. J. Zool. **5**: 506 ;
figs. 2-7 ; 19 ; pl. 1, fig. 2.

TYPE: IRSNB.

hirtus var. *minor*, Elston — see *Hapatesus* (*Minutesus*) *bubanus*, Neboiss.

hirtus var. *minor*, Lea — see *Hapatesus* (*Hapatesus*) *minor* (Lea).

jugulatus Candeze — see *Toorongus jugulatus* (Cand.).

junctus Neboiss

S-th Qld., N.S.W.

Hapatesus (*Hapatesus*) *junctus*, Neboiss, ibid.: 509 ; fig. 25

TYPE: NM. PARATYPES: JA ; JS ; NM.

kershawi Neboiss

N.S.W., Vic.

Hapatesus (*Hapatesus*) *kershawi*, Neboiss, ibid.: 500 ; figs. 8, 9.

TYPES: NM. PARATYPES: AM ; ETS ; FEW ; NM ; SAM ; OM

leai Schenkling — see *Hapatesus* (*Hapatesus*) *minor* Lea.

minor (Lea)

Tas., King Isl.

Hapatesus hirtus var. *minor*, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.) **20**: 157.

Hapatesus leai, Schenkling, 1927, Col. Cat. **11**(88): 408.

Hapatesus leai, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 50.

Hapatesus (*Hapatesus*) *minor*, Neboiss, 1957, Austr. J. Zool. **5**: 507 ; fig. 20.

TYPE: NM. PARATYPES: NM ; TDA.

minutus Schwarz — see *Toorongus minutus* (Schw.).

opulentus Neboiss N.S.W., Vic.

Hapatesus (Hapatesus) opulentus, Neboiss, *ibid.*: 505 ; figs. 21, 22.

TYPES: NM. PARATYPES: AM ; BM ; NM ; CSIRO ; QM.

pretiosus Candeze Qld.

Hapatesus pretiosus, Candeze, 1887, Notes Leyden Mus. **9**: 287.

Hapatesus (Hapatesus) pretiosus, Neboiss, 1957, Austr. J. Zool. **5**: 502 ; figs. 12, 13.

TYPE: IRSNB.

tepidus Neboiss S-th Qld., N-th N.S.W.

Hapatesus (Hapatesus) tepidus, Neboiss, *ibid.*: 503, figs. 14, 15.

TYPES: Holotype ♀ AM ; allotype ♂ QM. PARATYPES: NM ; QM.

zonatus Neboiss N-th N.S.W.

Hapatesus (Hapatesus) zonatus, Neboiss, *ibid.*: 504 ; figs. 16, 17 ; pl. 1, fig. 1.

TYPES: NM. PARATYPES: JA ; NM.

Subgenus *Minutesus* Neboiss

Hapatesus subgen. *Minutesus*, Neboiss, 1957, Austr. J. Zool. **5**: 509.

TYPE species: *Hapatesus (Minutesus) bubanus*, Neboiss, *ibid.*

bubanus Neboiss N-th Qld.

Hapatesus hirtus var. *minor*, Elston non Lea, 1930, Ark. Zool. **22**: 19.

Hapatesus hirtus var. *minor*, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 50.

Hapatesus (Minutesus) bubanus, Neboiss, 1957, Austr. J. Zool. **5**: 513 ; figs. 31-33 ; pl. 1, fig. 4.

TYPES: Holotype ♂ NRS ; allotype ♀ AM. PARATYPES: AM ; NM ; NRS ; SAM.

gundus Neboiss N-th Qld.

Hapatesus (Minutesus) gundus, Neboiss, *ibid.*: 512 ; fig. 30.

TYPE: AM.

pallidus Neboiss N-th Qld.

Hapatesus (Minutesus) pallidus, Neboiss, *ibid.*: 512 ; figs. 34, 35.

TYPES: NM. PARATYPES: HSPA ; JS ; NM.

pervulgatus Neboiss Qld., N.S.W.

Hapatesus (Minutesus) pervulgatus, Neboiss, *ibid.*: 511 ; figs. 28, 29 ; pl. 1, fig. 3.

TYPES: NM. PARATYPES: AM ; DANSW ; QM ; QU.

sagittarius Neboiss N-th Qld.

Hapatesus (Minuicusus) sagittarius, Neboiss, *ibid.*: 511 ; fig. 27.

TYPE: AM.

Genus *Toorongus* Neboiss

Toorongus, Neboiss, 1957, Austr. J. Zool. **5**: 515.

TYPE species: *Hapatesus jugulatus*, Candeze, 1900, Ann. Soc. Ent. Belg. **44**: 97.

bivius Neboiss

S-th Qld., N.S.W., Vic.

Toorongus bivius, Neboiss, 1957, Austr. J. Zool. **5**: 517; fig. 43, pl. 1, fig. 5.

TYPES: NM. PARATYPES: CSIRO; NM; QM.

excelsus Neboiss

N.S.W., Vic.

Toorongus excelsus, Neboiss, *ibid.*: 519; fig. 44.

TYPES: NM. PARATYPES: CD; FEW.

jugulatus (Candeze)

N.S.W., Vic., Tas.

Hapatesus jugulatus, Candeze, 1900, Ann. Soc. Ent. Belg. **44**: 97.

Hapatesus dubius, Schwarz, 1902, Dtsch. Ent. Z. **1902**: 126.

Hapatesus jugulatus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 50.

Hapatesus dubius, Neboiss, *ibid.*

Toorongus jugulatus, Neboiss, 1957, Austr. J. Zool. **5**: 516; figs. 37-42

TYPES: IRSNB.

TYPE of *H. dubius* Schw.: DEI.

minutus (Schwarz)

N.S.W., Vic.

Hapatesus minutus, Schwarz, 1903, Dtsch. Ent. Z. **1903**: 395.

Hapatesus minutus, Neboiss, 1956, Mem. Nat. Mus. Vict. **22**(2): 50.

Toorongus minutus, Neboiss, 1957, Austr. J. Zool. **5**: 518; fig. 45.

TYPES: DEI.

Subfamily CREPIDOMENINAE

p. 51.

Genus *Crepidomenus* Erichson

aberrans Lea

PARATYPES: TDA.

adclaidae Candeze

Crepidomenus adclaidae, Zwaluwenburg, 1959, Pac. Ins. **1**: 402.

TYPE: BM.

australis (Boisduval)

Crepidomenus australis, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.). **20**: 158.

Crepidomenus australis, Zwaluwenburg, 1959, Pac. Ins. **1**: 403.

TYPE: BM.

decoratus Erichson

Crepidomenus decoratus, Lea, Proc. Roy. Soc. Vict. (N.S.). **20**: 158.

TYPE: ZM. PARATYPE: ZM.

p. 52. *fulgidus* Erichson

Crepidomenus fulgidus, Redtenbacher, 1868, Reise der . . . Novara. Zool.
2: 95.

Crepidomenus fulgidus, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.). 20: 158.
TYPES: ZM.

hirtus Candeze

Crepidomenus hirtus, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: BM.

luteipes Boheman

Crepidomenus luteipes, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: NRS. PARATYPES: (cotypes)—NRS.

metalescens Candeze

N.S.W.

Crepidomenus metalescens, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: BM.

p. 53. *montanus* Carter

PARATYPES: DANSW.

queenslandicus Blair

Crepidomenus queenslandicus, Glen, 1950, Smiths Misc. Coll. 111(11): 181 ;
figs. 10f ; 37d-f.

p. 54. *taeniatus* Erichson

TYPE: ZM. PARATYPES: NM ; ZM.

victoriae Candeze

Crepidomenus victoriae, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: BM.

vulneratus Candeze

Crepidomenus vulneratus, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: IRSNB.

Genus *Paracrepidomenus* Schwarz*filiformis* Candeze

Paracrepidomenus filiformis, Zwaluwenburg, 1959, Pac. Ins. 1: 403.
TYPE: BM.

p. 56.

Genus *Microdesmes* Candeze*mastersi* (Macleay)

PARATYPES: (cotypes)—SAM.

Subfamily *ELATERINAE*(to replace subfamily *LUDIINAE*)Genus *Elater* Linnaeus(to replace genus *Ludius* Berthold.)

Elater, Hincks, 1956, Journ. Soc. Brit. Ent. 5: 198.

- p. 57. Genus *Neotrichophorus* Jacobson.
both Australian species transferred back to genus *Megapenthes*. Genus *Neotrichophorus* should be omitted from Australian list.
- p. 58. Genus *Anilicus* Candeze
quadrigruttatus (Erichson)
Melanoxanthus quadrigruttatus, Lea, 1908, Proc. Roy. Soc. Vict. (N.S.) 20: 157.
TYPE: ZM.
semiflavus (Germar)
TYPE: ZM.
xanthomus (Macleay, W. S.)
TYPE: MACL.
- Genus *Paranilicus* Candeze
brevicornis (Macleay)
PARATYPES: (cotypes)—SAM.
- p. 59. Genus *Agonischius* Candeze
brevis Candeze
Agonischius brevis, Zwaluwenburg, 1959, Pac. Inst. 1: 408.
TYPE: MDN (designated by Fleutiaux).
mjobergi Elston
Agonischius mjobergi, Zwaluwenburg, 1959, Pac. Ins. 1: 409.
- p. 60. Genus *Dicteniophorus* Candeze
badiipennis Candeze
Dicteniophorus badiipennis, Zwaluwenburg, 1959, Pac. Ins. 1: 409.
TYPE: BM.
- p. 61. *fusiformis* Candeze
Dicteniophorus fusiformis, Redtenbacher, 1868, Reise der . . . Novara. Zool. 2: 96.
TYPE: BM.
melanoderus Candeze
Dicteniophorus melanoderus, Redtenbacher, 1868, ibid.: 96.
Dicteniophorus melanoderus, Zwaluwenburg, 1959, Pac. Ins. 1: 410.
TYPE: BM.
ramifer (Eschscholtz)
Dicteniophorus ramifer, Redtenbacher, 1868, Reise der . . . Novara Zool. 2: 96.
TYPE: ZM.

p. 62.

Genus *Anilicopsis* Schwarz

Anilicopsis dubius (Schwarz) is a synonym of *Heligmus glyphoderus*, Candeze, a South American species which has been incorrectly referred to Australia. It should be omitted from Australian list.

ref. Quelle, 1934, Mitt. D. Ent. Ges. **5**: 33-34.

Genus *Acroniopus* Erichson

fuliginosus Candeze

TYPE: ZM.

humilis (Erichson)

TYPE: ZM.

infimus (Erichson)

TYPE: ZM.

pallidus Blackburn

TYPE: SAM.

Subfamily *DENTICOLLINAE*

p. 63.

Genus *Macromalocera* Hope

ceramboides Hope

Macromalocera ceramboides, Zwaluwenburg, 1959, Pac. Ins. **1**: 410.

TYPE: Oxford (?).

coenosa Hope

Macromalocera coenosa, Zwaluwenburg, 1959, *ibid.*

TYPE: Oxford (?).

sinuaticollis Blackburn

Macromalocera sinuaticollis, Zwaluwenburg, 1959, *ibid.*

TYPE: BM.

Genus *Hemiopsida* Macleay

This genus belong to the family *Eucnemidae*, and should be omitted from list of Elateridae.

ref. Lea, 1895, Proc. Linn. Soc. N.S.W. **10**: 230.

Subfamily *PHYSODACTYLINAE*

p. 64.

Genus *Patriciella* Zwaluwenburg

This name to replace *Patricia* Zwaluwenburg non Fox.

ref. Zwaluwenburg, 1953, Proc. Hawaii. Ent. Soc. **15**: 20.

ADDITIONAL REFERENCES.

1. Arnett, R. H., 1952, Wasmann Journ. Biol. **10**: 103-126.
2. Blackburn, T., 1896, Report Horn Exped. Centr. Austr. Pt. 2 Zool. Coleoptera. 254-308 (271-272).
3. „ 1897, Trans. roy. Soc. S. Austr. **21**: 28-39 (32-33).
4. Burns, A. N., 1928, Qld. Agr. Journ. **30**: 426.
5. Froggatt, W. W., 1923, "Forest Insects of Australia," Sydney. 171 pp. (35).
6. Glen, R., 1950, Smiths. Misc. Coll. **111**(11): 1-246 (181-182).
7. Heller, K. M., 1900, Denkschr. med.-naturwiss. Ges. Jena **8**(17): 615-626 (620).
in Semon R. Zoolog. Forschungsreise Austr. 1891-93.5(5).
8. Lea, A. M., 1912, Trans. roy. Soc. S. Austr. **36**: v-xl.
9. Neboiss, A., 1956, Mem. Nat. Mus. Vict. **22**(2): 1-75.
10. „ 1957, Austr. J. Zool. **5**: 496-520.
11. „ 1959, Austr. J. Zool. **7**: 136-145.
12. „ 1960, Austr. J. Zool. **8**: 289-306.
13. Quelle, F., 1934, Mitt. D. ent. Ges. Berlin. **5**: 33-34.
- Semon, R.—see Heller, K. M.
14. Zwaluwenburg, R. H., Van, 1953, Proc. Hawaii ent. Soc. **15**: 20.
15. „ 1959, Pac. Ins. **1**: 347-414.

This issue completes Memoirs No. 22.



